

CONFORMABLE FRACTIONAL DIFFERENTIAL EQUATIONS IN b -METRIC SPACES*

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Abstract

In this article we investigate some existence results for functional and neutral conformable fractional differential equations in b -metric spaces. Our results are based on the fixed point theory and the $\alpha - \phi$ -Geraghty type contraction. Two illustrate examples are given in the last section.

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keywords: Conformable integral of fractional order; Conformable fractional order derivative; neutral differential equation; b -metric space; $\alpha - \phi$ -Geraghty contraction, fixed point.

1 Introduction

Fractional differential equations have recently been applied in various areas of engineering, mathematics, physics, and other applied sciences. Considerable attention has been given to the existence of solutions of initial and boundary value problems for fractional differential equations; see the monographs [2, 3, 4, 23, 25, 26, 29].

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